ELECTRICAL AND COMMUNICATION UTILITY SYSTEMS REGULATION

INFORMATION BULLETIN

APRIL, 1991

Alberta
LABOUR
Work and Safety Standards Division
Safety Standards
10808 - 99 Avenue
Edmonton, Alberta
T5K OG5

Issue #002

PREFACE

The items in this Information Bulletin reflect decisions from the Utility Committee meeting held in November 1990.

Section 42 Prohibited Clothing

There was unanimous agreement by the committee that the present regulation 42(1)(a) is improperly worded. It was also agreed that the regulation does not adequately address the areas of concern. The consensus of studies indicate that the type of clothing worn next to the skin is the most important element to consider for protection from arcing and flash burns. The key elements to be considered when selecting protective clothing are materials that:

1. Prevent the transmission of heat from one layer to another.
2. Stay intact; do not fall apart, shrivel or shrink.
3. Are easily extinguished by rolling on the ground or in the snow, etc.
4. Are comfortable to wear.

Although cotton, wool and similar material fibres will burn, they do not melt or adhere to the skin like man made fibres such as nylon.

It is recommended that all Utilities workers who may be exposed to electrical arcs and fires, wear clothing with 100% natural fibres such as cotton, wool, etc, next to the skin.

Stand-offs for Underground Risers on Poles

Some member utilities require underground risers on poles to be installed on stand-offs. This has created a conflict with required spacing of supports for raceways and with regulations to discourage climbing. Section 264(3) requires a minimum 2.5 m between supports to discourage climbing. Canadian Electrical Code rules require shorter spacings between supports.

It was been agreed that where stand-offs are required, the maximum spacing requirements of Rule 12-1212 C.E. Code must be 2.5 m to comply with ECUSR requirements. In this section, rigid PVC or HFT conduit with a trade size of 2½ inch or larger must be used either as a continuous run or as a sleeve to support raceways of a smaller trade size.

An item to this effect has been published in the Electrical Protection Branch January 1991 Quarterly Bulletin to advise the Electrical Trade of this policy.

Sections 10, 438 and 256

The Utility Committee agreed with a proposal by the Technical Sub-Committee, that communication cables should be included in the noted sections. The following section changes were proposed and agreed to with the recommendation they be followed pending the rewrite of the Regulation. Please make the following changes to the noted sections.

Section 10 (1) - - contact the operator of the Electrical and Communication utility - - - - - -
whether underground power or communication cables are present, - - -

(2) - - operator of underground utility cables - - -
mark any underground cable that - - -

(3) - - 1 m of any underground utility cables - - -
(a) - - underground utility cables - -
(b) - - underground utility cables - -

Section 356.2 (1) – overhead power or communication line or - -

(2) – an overload power or communication line or - -

Section 438 (1) – underground power or communication cables shall - -

(2) – underground power or communication cables shall - -
(a) - strike out "power"
(b) - strike out "power"

Division H - Tree Work performed by Utility Arborist and Utility Tree Workers

Utility companies have expressed concern over some of the regulations in this Division. The Safety Sub-Committee made recommendations to the Committee regarding the equipment being used and the clearances to energized lines. The Utility Committee agreed to the following changes to the regulations which become effective immediately:

Section 128 - Add sub-section (f) Where an aerial device is used to perform the work, the boom shall have an insulated section.

Section 137(1)(b) delete – or the insulated portion of an aerial device boom - -

Add (c) Allow the insulated portion of an aerial device boom to approach energized electrical equipment or lines closer than the limits of approach distance specified in Table 3-5 Column 6.

Table 3 - 5 Add Column 6 Limit of Approach for Rated Insulated Booms

Column 2	Column 6
4.16	500
13.8	550
25	650
34.5	750
69.72	1050
138,144	1350
230,240	1850
500	3150

NOTE: This section does not apply to Utility or Qualified Utility Employees doing Tree Work near Energized Electrical Equipment or Lines.

Section 137(2)

A question was raised regarding clearances required to a "neutral wire". A "neutral wire" is considered to be a "grounded object" and the limits of approach in Table 3-5, Column 5 would apply.

Underground Cables

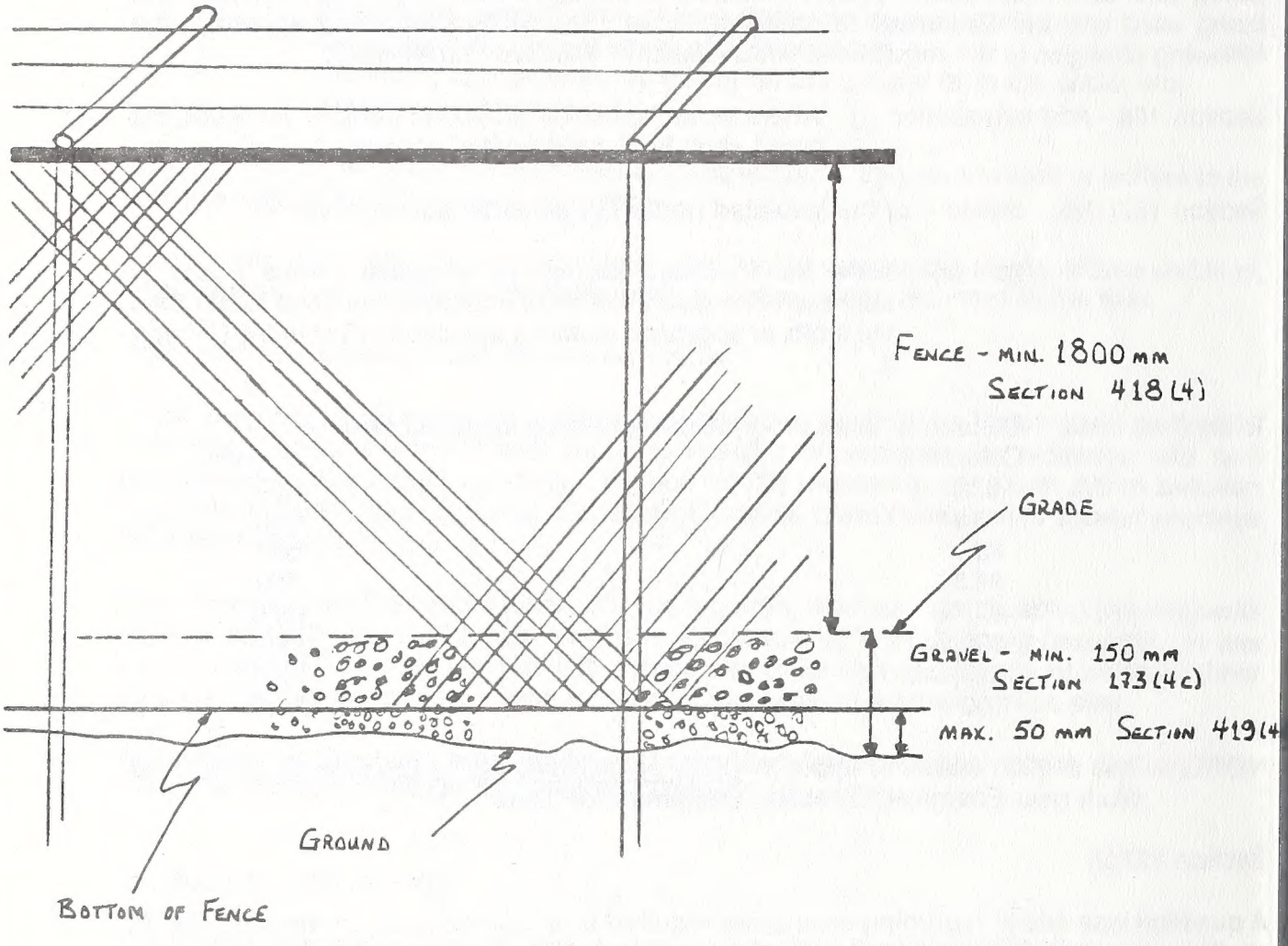
Canadian Electrical Association (CEA) is developing a new specification for XLPE underground Feeder Cable. This standard is expected to be adopted by CEA at the spring meeting in May 1991. This product design is based on many of the CSA standards for wire and cable. The product may not be CSA certified, however will meet the "approved" definition in the Utility Regulation. It's use will be limited to Utility owned and operated facilities.

Section 418, 419, 173 - Substation Fencing

The Utility Committee agreed with the recommendation of the Technical Sub-Committee on the following interpretation of the noted sections. (See sketch)

Section 418(4) "above grade level" means above finished grade level, (top of the gravel or similar material referenced in Section 173(4)(c).

419(4) "to within 50 mm of ground" means to within 50mm of the grade level before the gravel is installed.



NEW UTILITY ADMINISTRATOR

Due to re-organization of Alberta Labour into four regions and consolidation of the Standards functions, Mr. Gil Parent will be Utility Administrator effectively immediately. He may be reached in Head Office at 427-8260.

ANNUAL UTILITY COMMITTEE MEETING

The Annual Utility Committee Meeting is scheduled to be held November 27 & 28, 1991 at the Edmonton Inn, Edmonton. Any agenda items should be submitted to Gil Parent by October 01, 1991.